

## **PROCESSING METHODS FOR ELIMINATING GRAINS FROM SHEA BUTTER** – Funlayo and Shola Alabi, Owners Shea Radiance, Shea Radiance Supplies and AgroBotanicals

### **Some background information**

The information provided comes as a result of a number informal experiments we conducted in order to determine the best way to eliminate grains from shea butter. We used only unrefined shea butter in our samples. We have found that through the use of the methods described below, we have been able to achieve and maintain a smooth textured shea butter in our line of pure shea butter spa products.

The texture of the shea butter is not much of a concern when making emulsions – lotions and creams that involve the use of water, oils and an emulsifier. The shea butter is melted with other oils in the oil phase and graininess is not an issue.

The texture of the shea butter becomes an issue when creating an oil based balm, salve or butter. Having a smooth textured product is important in creating an attractive finished product that will appeal to the customers' sense of sight and touch.

### **Some causes of graininess**

Graininess is not an indication that the shea butter is bad or degraded. Shea butter becomes grainy when the butter is melted and then solidifies as it cools. This melting and cooling can occur in many ways including but not limited to:

- Transition from the farm in Africa to seaport
- Transition through multiple temperature zones while being shipped across the ocean.
- Melting and re-batching that can occur when a supplier has to break down the bulk butters to smaller sizes for resale.

### **Melting Phase**

We have found that simply melting shea butter and leaving it to cooling in the jar at room temperature can result in a grainy product. The key to eliminating grains in shea butter is to intermittently stir the butter during in the cool down phase.

For a large batch of product, we recommend melting shea the shea in an appropriately sized pot to make sure the shea is completely melted. We tried melting at different temperature levels from approx 130 F to 178 F and found that the outcome was the same at both temperatures.

If you are making a balm that calls for other harder butters like cocoa or mango butter, it best to melt them all with the shea in the initial heating phase. Liquid oils can be added at this time also or later in the cool down phase. Scenting with essential oils should be done when the batch has cooled below 100F. Once all the shea is melted, remove the pot from the stove or the source of heat. The key is to stir the shea butter every 30 minutes once the temperatures start going below 100 degrees.

In order to expedite the cooling time, place pot in a freezer if you have the space or outside during the fall or winter months. If you are cooling outside be sure to put some type of cover on pot so debris does not get in the batch.

### **Stirring Phase**

Once the temperature gets below 100 degrees begin to stir every 30 minutes. You can use a long stick or spoon. I use a large whisk to stir the batch. The intent is not to whisk the oil but to stir evenly for a few minutes. As the temps drop to 90 F you will notice a very slight thickening of the batch and the shea butter will also have a more opaque appearance.

### **Pouring and Solidifying Phase**

When the batch begins to thicken and get a little cloudy it is a good time to pour the shea into desired containers. Lay containers out on a table or counter top and pour. There are two way to solidify the shea in order to finalize the process.

1. Cool at room temperature - Pour shea into desired containers and leave at room temperature. It will take anywhere from 4 -8 hours for the shea to solidify depending on the depth of the jars. A practical option if you are doing a large batch.
2. Quick freeze method - Pour shea into desired containers and place in the freezer for about 15 – 30 minutes depending on the depth of the jar. The quick freeze method gives a nice shiny finish to the product. A great option if you are doing a small batch or have ample freezer space.

I recommend that the first time your try this method that you check the texture of your product after 2 days to verify that no grains formed in the product during the cooling process. You will find that with this method, your balms will be smooth and creamy.